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DATE MAILED: 09/19/2006

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO
10/798,276	03/12/2004	Masami Hiramatsu	ASA-1174	6453
24956 7	7590 09/19/2006		EXAMINER	
MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C.			IQBAL, NADEEM	
1800 DIAGONAL ROAD SUITE 370		ART UNIT	PAPER NUMBER	
ALEXANDRIA, VA 22314			2114	· · · · · · · · · · · · · · · · · · ·

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)	-			
	10/798,276	HIRAMATSU ET AL.				
Office Action Summary	Examiner	Art Unit				
	Nadeem Iqbal	2114				
The MAILING DATE of this communication a	1	L	_			
Period for Reply						
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING IDENTIFY Extensions of time may be available under the provisions of 37 CFR 1 after SIX (6) MONTHS from the mailing date of this communication. If NO period for reply is specified above, the maximum statutory period Failure to reply within the set or extended period for reply will, by statu Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	DATE OF THIS COMMUNICATION .136(a). In no event, however, may a reply be tim d will apply and will expire SIX (6) MONTHS from the, cause the application to become ABANDONE	N. nely filed the mailing date of this communication. D (35 U.S.C. § 133).				
Status						
1)⊠ Responsive to communication(s) filed on 12 i	March 2004					
·	is action is non-final.					
3) Since this application is in condition for allow		secution as to the merits is				
closed in accordance with the practice under	· · · · · · · · · · · · · · · · · · ·					
Disposition of Claims		, , , , , , , , , , , , , , , , , , , ,				
•						
	 Claim(s) 1-9 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. 					
5) Claim(s) is/are allowed.	awn nom consideration.					
·						
7) Claim(s) is/are objected to.	Claim(s) 1-9 is/are rejected.					
8) Claim(s) are subject to restriction and/	or election requirement					
o) Claim(s) are subject to restriction and	or election requirement.					
Application Papers						
9)☐ The specification is objected to by the Examin	ner.					
10) The drawing(s) filed on is/are: a) □ ac	cepted or b) objected to by the t	Examiner.				
Applicant may not request that any objection to the	e drawing(s) be held in abeyance. See	∋ 37 CFR 1.85(a).				
Replacement drawing sheet(s) including the corre	ction is required if the drawing(s) is obj	jected to. See 37 CFR 1.121(d).				
11)☐ The oath or declaration is objected to by the E	Examiner. Note the attached Office	Action or form PTO-152.				
Priority under 35 U.S.C. § 119						
12)⊠ Acknowledgment is made of a claim for foreig	n priority under 35 U.S.C. § 119(a))-(d) or (f).				
a)⊠ All b)□ Some * c)□ None of:	, ,					
1. Certified copies of the priority documer	nts have been received.					
2. Certified copies of the priority documer		on No				
3. Copies of the certified copies of the price	ority documents have been receive	ed in this National Stage				
application from the International Burea	au (PCT Rule 17.2(a)).	_				
* See the attached detailed Office action for a lis	t of the certified copies not receive	ed.				
Attachment(s)						
1) X Notice of References Cited (PTO-892)	4) Interview Summary	(PTO-413)				
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Da	nte				
B) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <i>Mar 12, 04</i> .	5) Notice of Informal P	atent Application				
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DETAILED ACTION

Claim Rejections - 35 USC § 103

- 1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
- 3. Claims 1 & 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwarm et al., (U.S. Patent number 7028218) in view of Hashemi (U.S. Patent number 5491787).
- 4. Schwarm et al., teaches (col. 2, lines 33-36) a redundant file server including at least first processor and a second processor, the second processor board is programmed to assume the file server functions of the first processor upon failure of the first processor. He also teaches (col. 9, lines 62-64) that the first logical CPU of the first processor executes storage system microcode under Microsoft NT operating system, and the second logical CPU of the processor executes control station microcode under the Linux operating system. He thus teaches limitations pertain to a first OS the first OS to conduct ordinary business processing and a second OS differing from

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the first OS and an analysis and prediction application operating on the second OS. He does not explicitly discloses first OS holds state information and that the analysis and prediction application analyzes contents of information held by the first OS detecting sign of a failure. Hashemi teaches (col. 3, lines 49-53) a fault tolerant system in which one processor is utilized for operational purposes and the other processor would be used for checking operation of the first processor for error or fault detection. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include Hashemi invention into the invention of Schwarm to be able to check operations of the first processor for error or fault detection. This is because both invention are in the same environment of fault tolerance and inclusion of Hashemi clearly provides a desirable advantage of checking operations of the first processor and Schwarm teaches (col. 10, lines 39-41) microcode functions include control station fail-over, and data mover failover, therefore provides motivation for the stated inclusion.

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- 5. Claims 2-4, 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwarm et al., (U.S. Patent number 7028218) in view of Hashemi (U.S. Patent number 5491787) as applied to claim 1 above, and further in view of Yasuda (U.S. Patent number 7069473).
- 6. As per claim 2, Hashemi teaches (col. 5, lines 35-38) error reporting/handling module which would receive and respond to any error indication produced by processors. Schwarm does not explicitly discloses an auxiliary program that conducts processing against a failure of the first OS. Yasuda teaches (col. 2, lines 49-51) a storage section for storing and holding fault recovery information including rules for defining recovery operations when fault occurs in the at least one computer system. It would have been obvious to a person of ordinary skill in the art to include into the invention of Schwarm a storage section for storing and holding fault recovery

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information including rules. This is because such an inclusion provides a desirable advantage for recovering automatically from a fault and a fault monitoring apparatus as taught by Yasuda teaches (col. 2, lines 45-47).

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- 7. As per claim 3, With reference to notification to an external terminal of contents of an analyzed failure sign. Yasuda teaches at (col. 21, lines 52-54).
- As per claims 4 & 6, Schwarm et al., teaches (col. 9, lines 62-64) that the first logical 8. CPU of the first processor executes storage system microcode under Microsoft NT operating system, and the second logical CPU of the processor executes control station microcode under the Linux operating system. He thus teaches limitations pertain to a first OS the first OS to conduct ordinary business processing and a second OS differing from the first OS and an analysis and prediction application operating on the second OS. He does not explicitly discloses first OS holds state information and that the analysis and prediction application analyzes contents of information held by the first OS detecting sign of a failure. Hashemi teaches (col. 3, lines 49-53) a fault tolerant system in which one processor is utilized for operational purposes and the other processor would be used for checking operation of the first processor for error or fault detection. He also teaches (col. 3, lines 53-55) a controller that would switch the processors between normal and shadow operation. It would have been obvious to a person of ordinary skill in the art to include Hashemi invention into the invention of Schwarm to be able to check operations of the first processor for error or fault detection. This is because both invention are in the same environment of fault tolerance and inclusion of Hashemi clearly provides a desirable advantage of checking operations of the first processor and Schwarm teaches (col. 10, lines 39-

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41) microcode functions include control station fail-over, and data mover failover, therefore provides motivation for the stated inclusion.

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- 9. As per claim 7, With reference to notification to other virtual multi-OS sets of analyzed contents. Yasuda teaches at (col. 21, lines 52-54). Hashemi also teaches (col. 3, lines 60-63).
- 10. As per claim 8, Schwarm et al., teaches (col. 9, lines 62-64) that the first logical CPU of the first processor executes storage system microcode under Microsoft NT operating system, and the second logical CPU of the processor executes control station microcode under the Linux operating system. He thus teaches limitations pertain to a first OS the first OS to conduct ordinary business processing and a second OS differing from the first OS and an analysis and prediction application operating on the second OS. He does not explicitly discloses analyzing contents of state information and that the analysis and prediction application analyzes contents of information held by the first OS detecting sign of a failure. Hashemi teaches (col. 3, lines 49-53) a fault tolerant system in which one processor is utilized for operational purposes and the other processor would be used for checking operation of the first processor for error or fault detection. He also teaches (col. 3, lines 53-55) a controller that would switch the processors between normal and shadow operation. It would have been obvious to a person of ordinary skill in the art to include Hashemi invention into the invention of Schwarm to be able to check operations of the first processor for error or fault detection. This is because both invention are in the same environment of fault tolerance and inclusion of Hashemi clearly provides a desirable advantage of checking operations of the first processor and Schwarm teaches (col. 10, lines 39-41) microcode functions include control station fail-over, and data mover failover, therefore provides motivation for the stated inclusion.

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11. As per claim 9, Hashemi teaches (col. 5, lines 35-38) error reporting/handling module which would receive and respond to any error indication produced by processors. Schwarm does not explicitly discloses an auxiliary program that conducts processing against a failure of the first OS. Yasuda teaches (col. 2, lines 49-51) a storage section for storing and holding fault recovery information including rules for defining recovery operations when fault occurs in the at least one computer system. It would have been obvious to a person of ordinary skill in the art to include into the invention of Schwarm a storage section for storing and holding fault recovery information including rules. This is because such an inclusion provides a desirable advantage for recovering automatically from a fault and a fault monitoring apparatus as taught by Yasuda teaches (col. 2, lines 45-47).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nadeem Iqbal whose telephone number is (571)-272-3659. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Baderman can be reached on (571)-272-3644. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nadeem Iqbal Primary Examiner Art Unit 2114

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